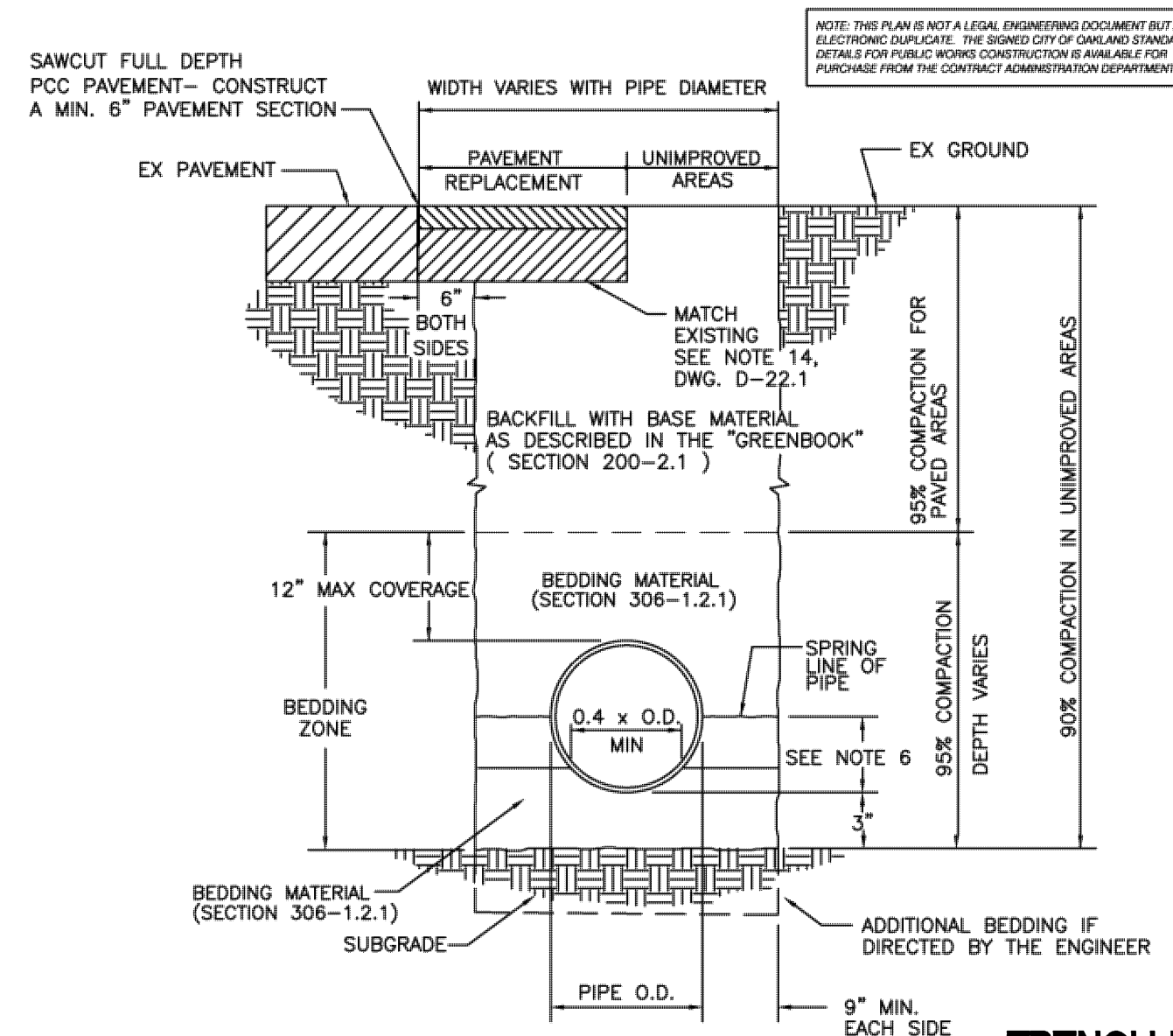


**TRENCHING NOTES:**

1. MINIMUM COVER FOR SIDE SEWER IN TRAFFIC AREAS SHALL BE FIVE FEET.
2. MINIMUM COVER FOR SIDE SEWER OUTSIDE OF TRAFFIC AREAS SHALL BE THIRTY INCHES.
3. ALL TRENCHES TO BE REVIEWED AND APPROVED BY OAKLAND DEPARTMENT OF PUBLIC WORKS.
4. THE MINIMUM ALLOWABLE HORIZONTAL SEPARATION BETWEEN PG&E FACILITIES AND "WET" FACILITIES IS 6 FEET.

**PAVEMENT TYPES**

TYPE A	TYPE B	TYPE C	TYPE D	TYPE F
6" P.C.C. PER SECTION 201-1.1.2	3" A.C. PER SECTION 306-1.5.2	4" A.C. PER SECTION 306-1.5.2	3" A.C. PER SECTION 306-1.5.2	VARIABLE DEPTH A.C. PER SECTION 306-1.5.2
18" A.B. PER SECTION 306-1.3.1	6" P.C.C. PER SECTION 201-1.1.2	18" A.B. PER SECTION 306-1.3.1	18" A.B. PER SECTION 306-1.3.1	



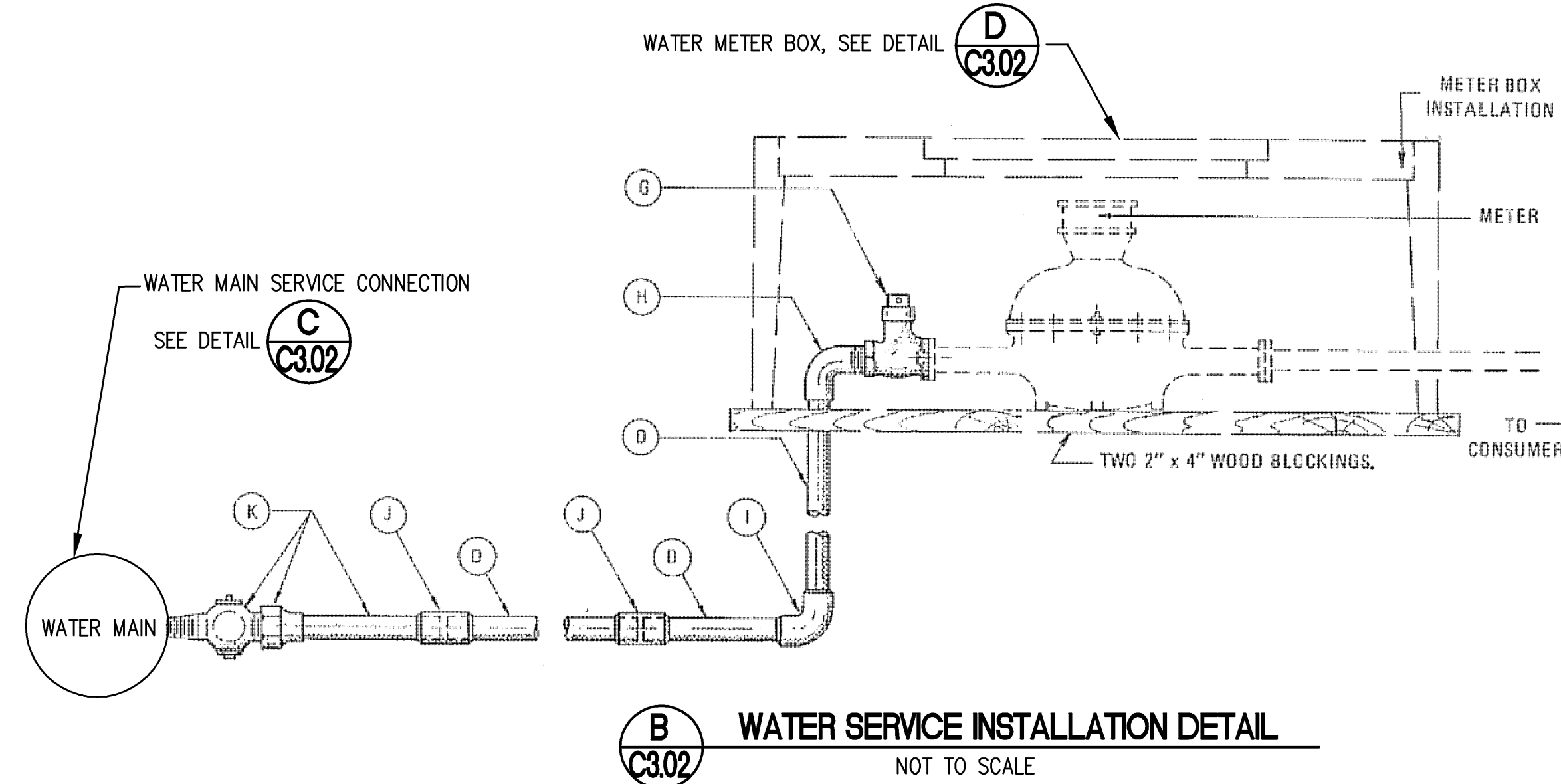
**TRENCH DETAIL AND NOTES PER OAKLAND STANDARD DETAILS D-22**  
NOT TO SCALE **A**  
C3.02

**NOTES:**

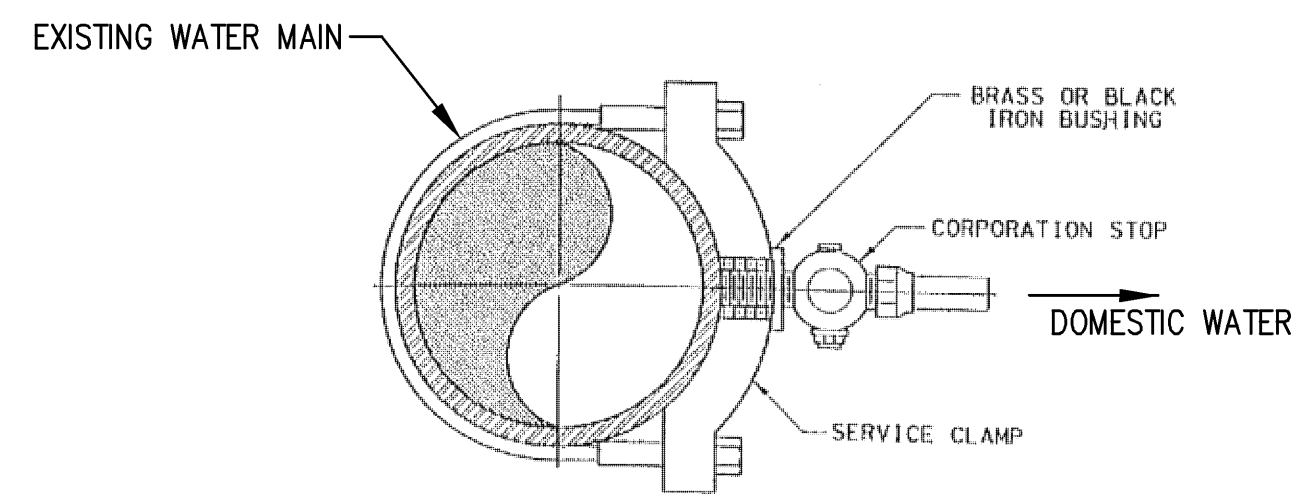
1. Excavated material shall not be used to fill voids caused by overexcavation; such voids shall be filled with compacted bedding material. Unless directed by the Engineer, no separate payment will be made for overexcavation.
2. Import backfill material shall conform to Subsection 306-1.3.1
3. Aggregate base shall conform to crushed miscellaneous base (Section 200-2.4) or better. The base material must be approved by the Engineer.
4. The streets of Oakland are generally paved with either AC, PCC, or a combination of the two. The existing pavement may differ from the replacement Pavement Type (A to F) indicated on the plans.
5. Compaction by jetting is not permitted.
6. When flexible pipe (HDPE, etc.) is used, pipe shall be backfilled to the spring line, compacted and backfill tested prior to completing initial backfill.
7. The compacted temporary resurfacing shall be a minimum of 2" thick placed on the required base, and shall be removed prior to placing the permanent paving.
8. Backfill testing is required and results shall be approved by the Engineer prior to paving.
9. No longitudinal joints or seams are allowed in bike lanes. If a longitudinal joint is constructed due to the Contractor's work or this requirement, the Contractor shall remove a minimum of 2" of asphalt from the pavement across the entire bike lane using a method approved by the City and then resurface the bike lane to the Engineer's satisfaction.
10. During backfill operations, the trench shall be backfilled, compacted, and tested to the spring line of any utilities crossing the trench before proceeding with further backfill.
11. Unless specified otherwise, measurement for payment of additional bedding, imported backfill and temporary paving (when listed as separate pay items) shall be based upon the trench widths defined on this detail. The lower trench width for 8" pipe shall be 30".
12. Clean and tuckcoat sides of excavation and between paving courses with spray application of SS-1 emulsion before placing asphalt-concrete pavement section.
13. If the distance to the edge of gutter is less than 3' from one trench edge, the pavement replacement shall extend to the edge of existing gutter.
14. In areas where existing paving consists of rubberized AC, the trench area should be repaved with the equivalent pavement section of rubberized AC. As an alternate, a dense graded AC section equivalent to two-times the thickness of the rubberized AC may be substituted.

**ITEMS**

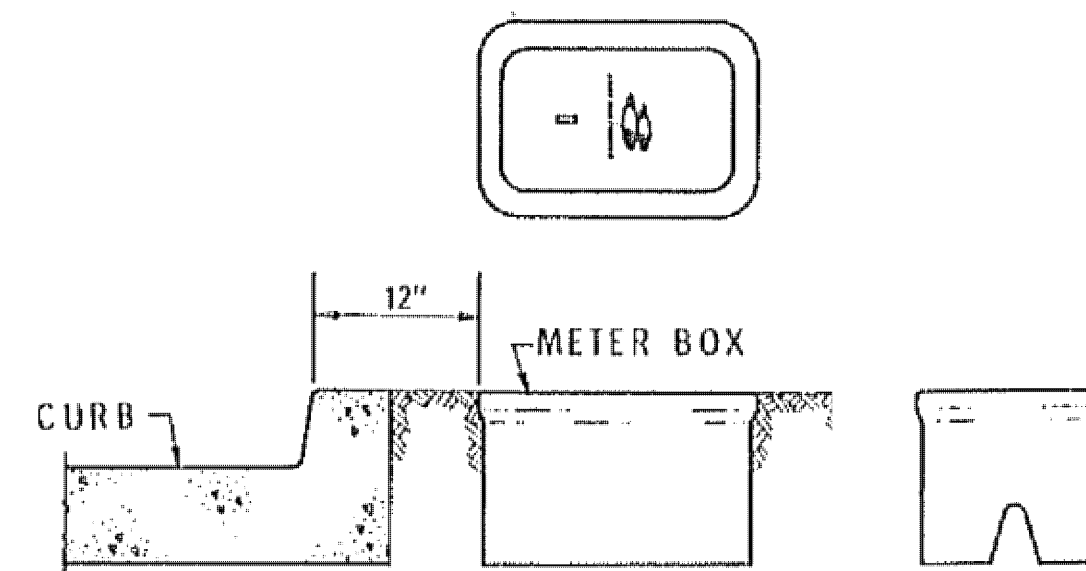
- D: COPPER WATER PIPE
- G: BALL VALVE, T HEAD, INLET IPT, OUTLET METER FLANGE
- H: ELBOW, COPPER TO IPT M
- I: ELBOW, COPPER TO COPPER
- J: COUPLING, COPPER TO COPPER
- K: COPPER JOINT ASSEMBLY—INCLUDING: COPPER WATER TUBE & CORPORATION STOP



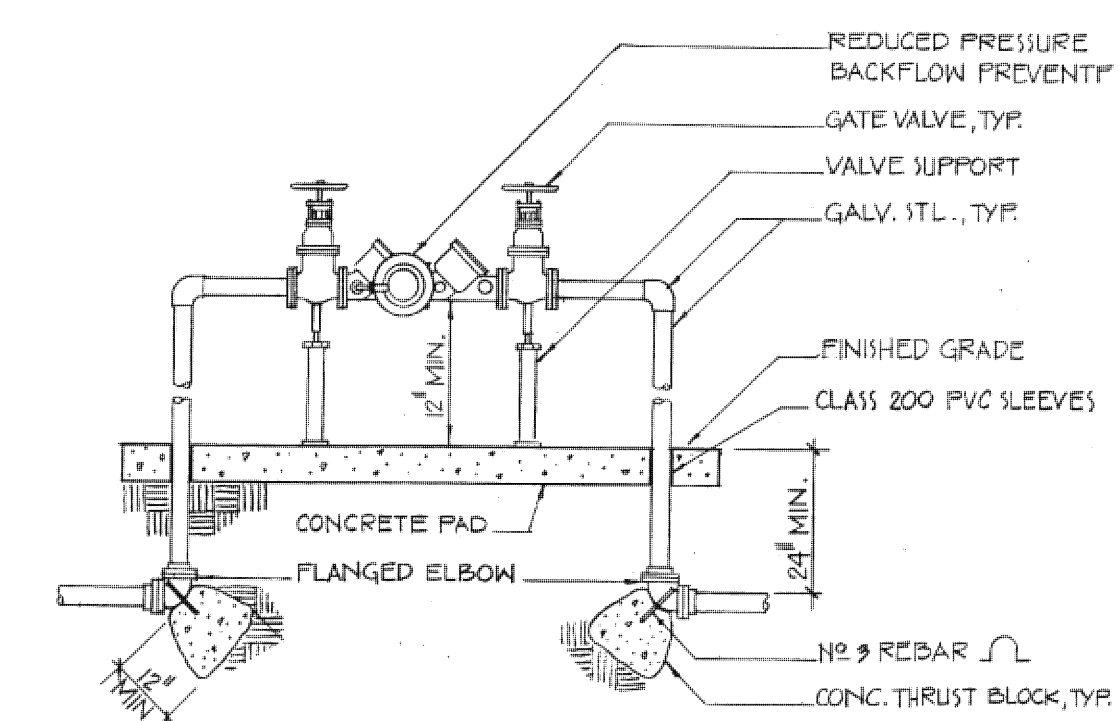
**WATER SERVICE INSTALLATION DETAIL**  
NOT TO SCALE **B**  
C3.02



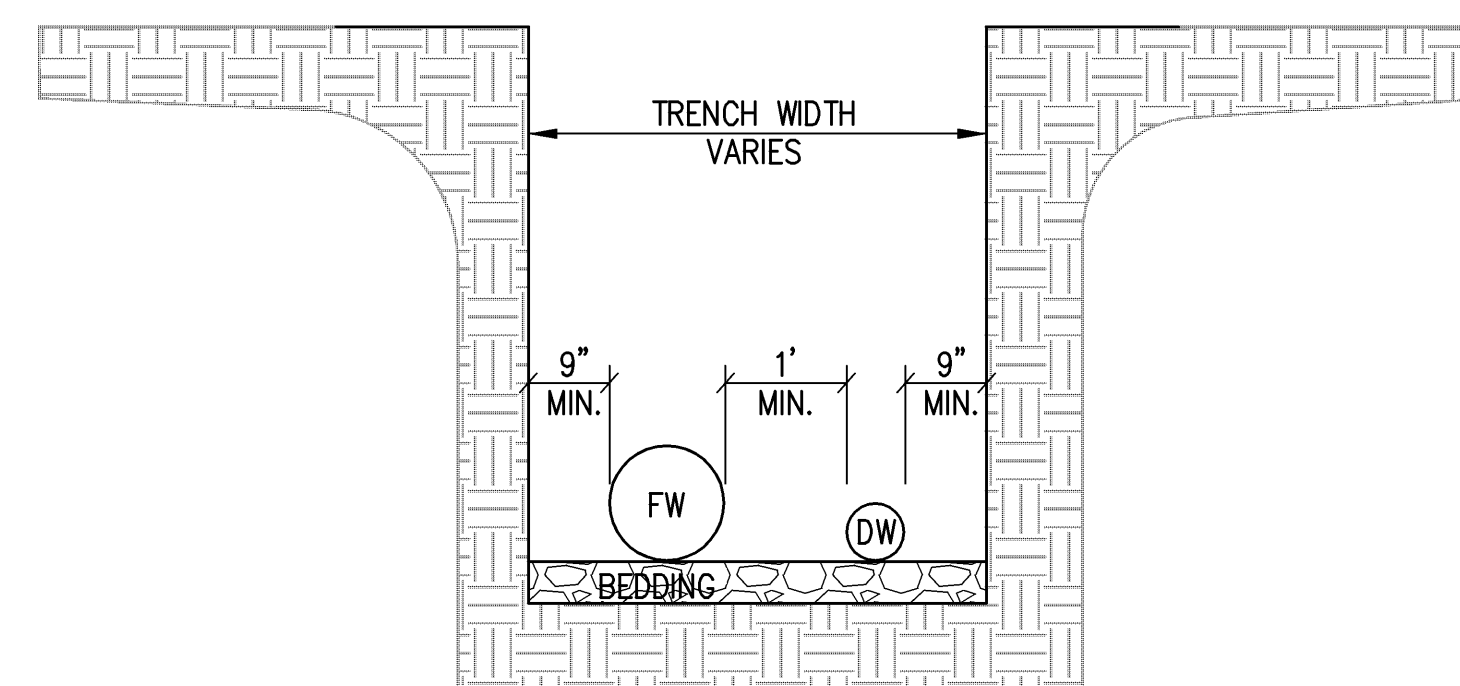
**DISTRIBUTION MAIN SERVICE CONNECTION DETAIL**  
NOT TO SCALE **C**  
C3.02



**WATER METER BOX INSTALLATION DETAIL**  
NOT TO SCALE **D**  
C3.02



**REDUCE PRESSURE BACKFLOW PREVENTER FOR 2' WATER SERVICE**  
NOT TO SCALE **E**  
C3.02



**OPTIONAL FIRE SERVICE AND DOMESTIC WATER TRENCH DETAIL**  
NOT TO SCALE **F**  
C3.02



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**OAKLAND ZOO**

**VETERINARY HOSPITAL**

9777 GOLF LINKS ROAD  
OAKLAND, CALIFORNIA 94605



**PERMIT SET**

SHEET TITLE  
**UTILITY PLAN DETAILS**

NO.	DATE	DESCRIPTION

DATE	12/28/2009
DRAWN	MC
CHECKED	VJD
SCALE	AS SHOWN
JOB NO.	208022.00

SHEET NUMBER

**C3.02**